

**Instructions**  
for the  
**Setting-up, Operation & Care**  
of  
**The Orthophonic**  
**Victrola**

**ELECTRIC MOTOR TYPE**

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**Before using the instrument read these  
instructions carefully.**

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**VICTOR TALKING MACHINE CO.**  
**CAMDEN, N. J., U. S. A.**

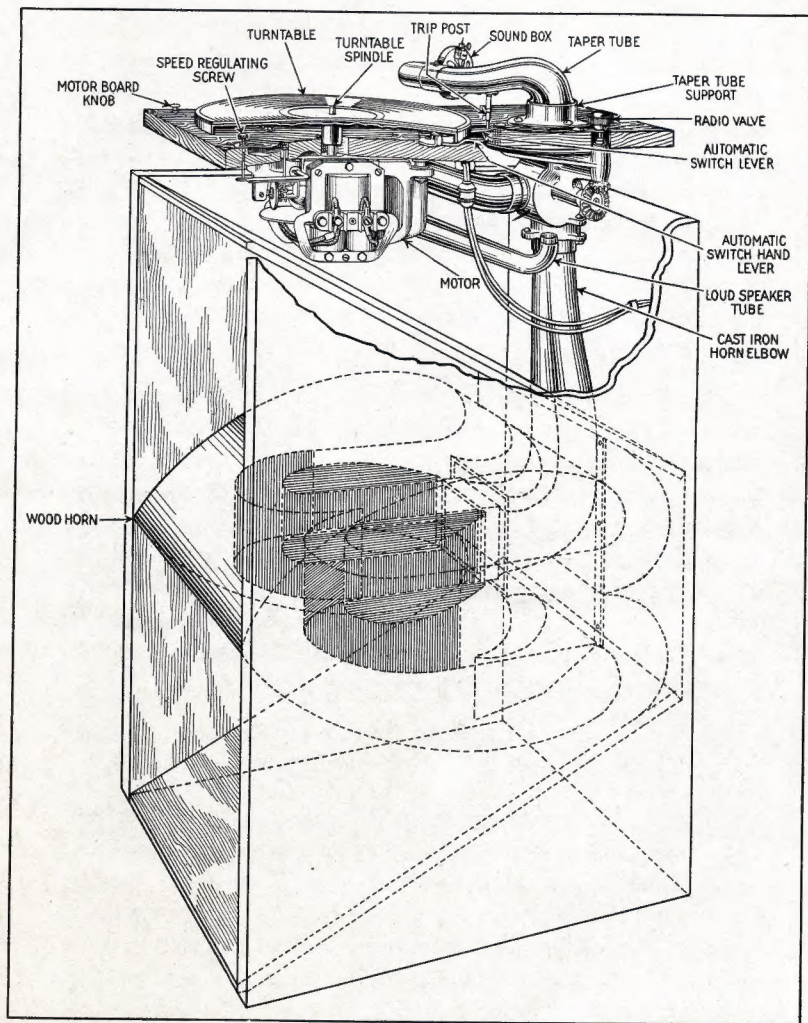


## *Your Victrola*

**N**OW that you own a Victrola, the whole world of music is open to you. There is no kind of music that you may not hear, at will, for the greatest artists in the world record for the Victrola. Everything is yours from the magnificent pageantry of the grand opera to the wild swing of the dance. The opera, the oratorio, the gospel hymn, the musical farce, the popular song, the war song, the military march, the symphony—these come to you in your own home. There is no variety of personal taste and no condition of mind, to which the Victor records will not minister.

The instrument itself will not require any great or expert care. It is carefully constructed, and before leaving the factory, it is subjected to the most rigorous tests. The directions in this book, however, should be read and the book itself preserved, in order that you may become familiar with every part of it.

To obtain the best results, and the unique quality that goes only with Victor products, you should use only Victor records and the Victrola Tungs-tone needle, or Victor steel needles.



Note: Instruments not equipped with radio will not have the Loud Speaker Tube or Radio Valve



## PART I—THE VICTROLA AS A MECHANISM

Behind the scenes at the opera; in the console of the pipe organ and in the studio of the master are mechanisms essential to the production of the pageantry; the music or the painting. In the Victrola, likewise, is a mechanism of reproduction—concealed, silent and dependable. To you, as a Victrola owner, an exact scientific knowledge is not necessary. A general understanding may increase your appreciation and enable you to observe the simple rules for keeping your Victrola in the perfect tune in which it was received.

Mechanically, the Victrola is a device for converting recorded sound waves again into sound. The sound waves are recorded in a spiral groove on the face of the disc record. Reproduction, perfect in every detail, is made at will through the medium of the needle, the sound box and the amplifier. The needle traces the sound wave spiral on the rotating record causing the diaphragm of the sound box to vibrate. In turn, the diaphragm causes the air in the sound box to vibrate, inducing sound waves that are restored, to the quality and approximate volume of the original.

A typical Victrola reproducing and amplifying mechanism, with the cabinet cut away is shown on Page 3.

The whole mechanism has the simplicity of perfection. Each detail is the result of numberless experiments and tests, certified by satisfactory service in the hands of the public. Your Victrola should operate for years without trouble, providing the following simple instructions are followed, and in the event of trouble after extended service, your dealer will be able to replace the parts in the original perfect condition.

## PART II—SETTING UP

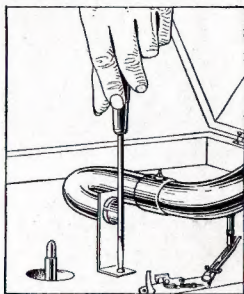
After your Victrola has been unpacked, in accordance with unpacking instructions, it should be placed in operating condition, as follows:

(1)—Unfasten the taper tube by removing the brace from the end of the sound box crook.

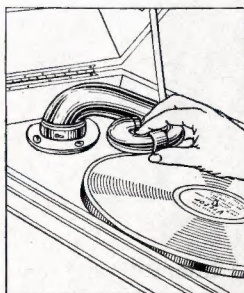
(2)—Swing the taper tube gently back and forth, between its stop limits. It should move freely without friction or binding, so that the needle will be permitted to pass easily over the record. Next see that the tube does not rattle on its bearings.

(3)—If the taper tube is too tight, or too loose, proper adjustment can be made as follows: Loosen (but do not remove) the three set screws in the taper tube support. Slide the set screws in the slots in the taper tube support, by using a screw driver against the side of the screw head, to the right or left until the adjustment is right; then tighten the set screws.

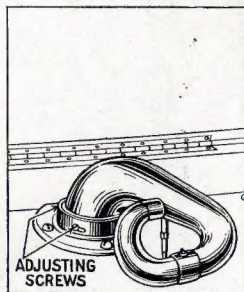
(4)—Next see that the automatic switch lever is engaged with the trip post, attached to the taper tube. This can be done by pressing the switch lever down far



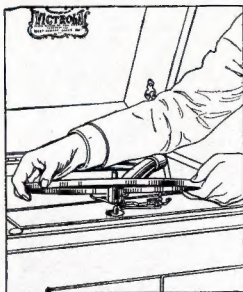
**Unfasten Crook**



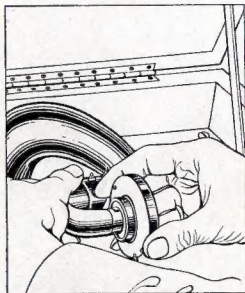
**Swing Tube**



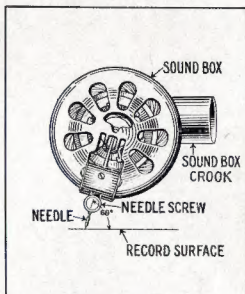
**Adjust Tube**



**Mount Turntable**



**Mount Sound Box**



**Correct Needle Angle**

enough to allow the end of the trip post to ride over one arm of the switch lever. After the trip post is in place between the two arms, allow the switch lever to spring back into position.

(5)—The turntable may now be mounted on the spindle.

1st—Swing the taper tube to the right as far as possible, and then holding the turntable in both hands drop it over the spindle.

2nd—See that slot in the turntable hub drops over the pin in the spindle.

(6)—Next mount the sound box on the sound box crook. The small projection on the inside of the sound box is slipped into the slot in the sound box crook, and is then turned to the right as far as possible, to lock it in place.

The needle should rest at an angle of about  $68^{\circ}$  to the surface of the record.

(7)—The electric motor in this instrument will operate only, on alternating current, having a frequency of 25 to 60 cycles, 100 to 120 volt circuit. Do not connect to direct current circuits.



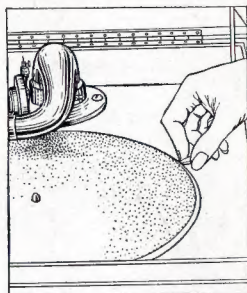
1st—It is to be observed, the motor is equipped with a safety fuse of 2.00 amperes, for 250 volts, to prevent burning out the motor, if accidentally connected to a direct current line.

2nd—If, the fuse has been blown out, or, if the motor fails to start, inspect the fuse. A blown out fuse must be replaced by a fuse of the same rating as stamped on the fuse which is furnished with the motor. This is a commercial fuse which may be obtained from dealers in electrical supplies.

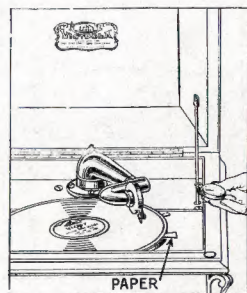
3rd—Before electric current is switched into this instrument the voltage of the circuit should be definitely ascertained.

4th—Connect plug on one end of attaching cord to instrument attaching plug, and the other end, having supply attaching plug, to any electric fixture. The attaching plug will be found on either the bottom or in the back of the cabinet.

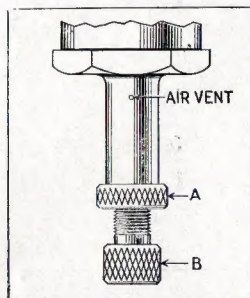
(8)—Start the motor by pulling the automatic switch hand lever towards the front of the cabinet.



**Starting**



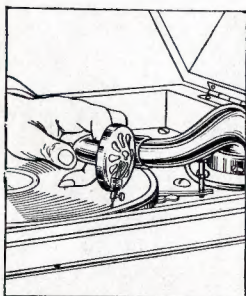
**Check R.P.M.**



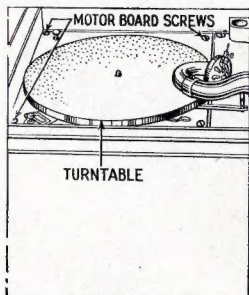
**Lid Support**



**Insert Needle**



**Lower Sound Box**



**Remove Turntable,  
Motor Board Screws**

(9)—The turntable should revolve at 78 revolutions per minute, by the speed indicator. The speed of revolution may be checked by placing a piece of white paper under the edge of the record on the turntable, and while the sound box and needle are in playing position, note the number of revolutions per minute. The speed regulating screw may be set to give the proper speed.

When this has been done if the indicator hand does not point to 78 on the dial, stop the motor, and remove the turntable. Start the motor and while it is running slide the dust cap to one side to expose the hand, insert a small screwdriver in the slot in the end of the shaft to hold it in position, then carefully move the hand to the right or left until it points to 78 on the dial.

(10)—On an instrument having a lid support of the pneumatic cushion type which permits the lid to drop slowly after being released from the catch, the lid should close quietly, but, if it does not, the lid support may require adjustment. After removing the back of the cabinet, by taking out the screws,

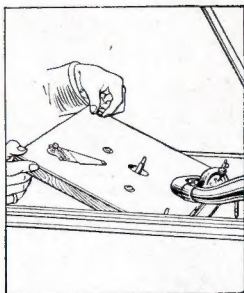


the adjustment should be made as follows:

1st—If the lid closes with a bump loosen lock nut "A," and turn the adjusting screw "B" to the right until proper cushioning has been secured. Then tighten the lock nut.

If, after making the adjustment, the lid fails to operate properly, place a few drops of oil (preferably Neat's-foot) in the top of the lid support tube.

2nd—If the lid closes too slowly or does not close tightly, first insert a small wire or any small pointed metal implement into the air vent. This will remove any dirt that may be clogging the vent. After cleaning the vent, if proper action is not obtained, proceed as directed in paragraph one, only turning the adjusting screw to the left. Your Victrola is now ready to play.



**Swing Taper Tube,  
Lift Motor Out**

### **PART III—PLAYING YOUR VICTROLA**

(1)—Put the Victrola Tungs-tone needle, or a new Victor steel needle in the sound box needle arm as far as it will go and tighten the needle screw firmly. Place a record on the turntable.

(2)—Next swing the taper tube to the outer edge of the record before pulling the automatic switch hand lever forward. This automatic switch will stop the instrument only, when an eccentric groove record is used. When using records which do not have the eccentric groove, it is necessary to operate the switch by hand.

(3)—Now start the motor by pulling the automatic switch hand lever toward the front of the instrument.

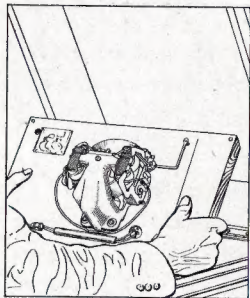
(4)—After the turntable has revolved several times, and picked up speed, lower the sound box gently on the smooth outside rim of the revolving record. Then carefully push the needle into the sound wave groove.

(5)—Close the lid of the instrument while a record is being played.

(6)—On instruments equipped with a radio valve, the horn can be used for either a record or radio reception by turning knob, near the taper tube, to the right or left, as indicated on the dial.

#### **PART IV—CARING FOR YOUR VICTROLA**

It must be realized that the Victrola Electric Motor is a precision instrument and must be treated as such. The motor should be kept clean, and lubricated at least once a month; the electrical connections must be tight to form perfect contacts. It is essential that the supply attaching plug be disconnected from the source of supply while cleaning, or any work on the motor is being done.



**Turn Over**

#### **To Turn Over Motor for Lubrication and Adjustment**

(1)—Remove (a) turntable; and  
(b) the motor board screws.

(2)—Next swing the taper tube to the right as far as possible, disengage the automatic switch lever from the brake trip post by pressing the switch lever down far enough to allow the end of the trip post to clear one arm of the switch lever. Turn the

switch lever to the right far enough to clear the back edge of the motor board, then grasp the knob, at the front, and lift out the motor board.

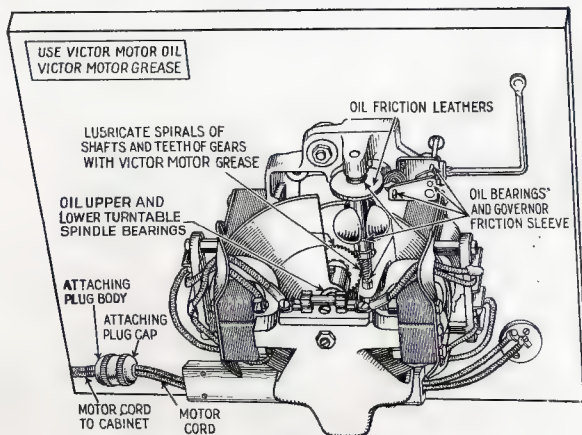
(3)—Turn the motor over to permit ready inspection and lubrication.

Note—To remove the motor board from the cabinet, disconnect the cap of attaching plug on motor cord, which is fastened to the motor board, from the body of attaching plug on motor cord, which is fastened to the side of the cabinet.

Should it at any time be necessary to remove the motor from the motor board, be sure to first remove the indicator hand. To do this, slide the dust cap to one side, remove the dial cover and crystal, unscrew the small nut on the shaft, then lift the spring washer and hand from the shaft.

## LUBRICATION

The parts requiring lubrication are shown in the oiling diagram. Before lubricating, wipe off the motor with a



Oiling Diagram



clean cloth dampened with a little kerosene. The proper lubricants required for your Victrola can be secured from any dealer in Victor products, and only Victor products are recommended.

Samples of the proper lubricants for your Electric Motor are sent out with each instrument.

## **SOUND BOX**

### **Imperfect Reproduction**

(1)—A loose needle is a frequent cause of a noisy sound box, hence if your Victrola reproduces improperly see that the needle is securely fastened in its holder.

(2)—If you are using steel needles, put in a new needle after every record. Using a steel needle more than once injures the record. The Tungs-tone needle can be used until the reproduction becomes imperfect.

The needle can be removed from the sound box and reinserted as desired. With care it should play many records. The Victor full tone steel needle or full tone Tungs-tone needle gives the best reproduction.

(3)—If a sound box noise should develop and if tightening or changing the needle does not eliminate it, and if the noise persists with various records, it is possible that the sound box is injured, or out of adjustment. Take the sound box to a dealer in Victor products for repairs.

## **DO NOT**

(1)—Do not touch the metal diaphragm of this sound box in any manner. It is well shielded, and strong under service, but, it will be injured if pushed, pressed or touched.

(2)—Do not leave the sound box down on the turntable when your Victrola is not in use. Turn it back until the sound box crook comes to the stop.

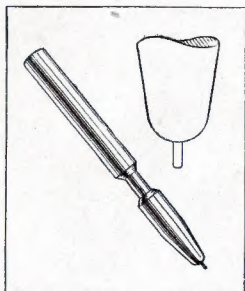
(3)—Do not drop the sound box onto the record. When starting to play, lower the sound box gently.

## **V—CARE OF RECORDS**

The records should be kept as free from dust as possible. Gritty dust on the records not only wears out the record rapidly, but causes harsh and unpleasant reproduction. Before playing, it is advisable to brush off the records. A piece of velvet or plush glued to a wooden block forms an excellent record pad. The records should be kept in the envelopes in which they are received, or in record albums provided for the purpose. The paper separators prevent any possibility of injury by contact between the records. It is also inadvisable to stack the records up, one on top of the other without any regard to the sizes. Records should be assorted as to size to be readily accessible. The records should not be exposed to severe heat, and should be cleaned only by brushing with the velvet or plush pad as noted. Soap and water or any other cleaning compound should not be used. If a record becomes cracked or badly scratched it is best to completely destroy it. Playing a scratched or imperfect record may result in injury to the sound box.

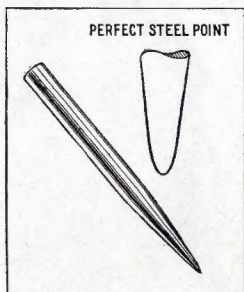
## **VI—THE VICTROLA TUNGS-TONE NEEDLE AND THE VICTOR STEEL NEEDLE**

We recommend that in playing your records you always use Victor needles. The Tungs-tone needle employs the metal tungsten, which is soft and fibrous, not hard and crystalline. The Victor Company controls, by patent, the use of this metal for reproducing points, and while other points have been made imitating the general form of Tungs-tone needles, they are invariably of some other material. The Tungs-tone needle, because of its soft texture will not wear out



your records. And it does not have to be changed for each record. Instead of being tapered the Tungs-tone needle is cylindrical in shape, and of the same width as the record groove. As its tip wears down, the needle will not, therefore, like a tapered point, tend to crowd the sides of the record groove and thus impair the tone of the music. Its

diameter remains the same from first to last. Each Tungs-tone needle will play many records. It is desirable to occasionally give the Tungs-tone needle a partial turn in the needle arm.



The Victor steel needles are made with the utmost care, and each and every one is polished to a spherical point and fits perfectly in the Victor record grooves.

For perfect reproduction and maximum record life we recommend that you use none other than the Victrola Tungs-tone needle or the Victor steel needle. A new steel needle should be used for each record, as a steel point wears down during the playing.

## IMPORTANT

If any part of your Victrola cannot be placed in perfect condition after following the instructions given in this book, consult a dealer in Victor products.



When returning any part of your Victrola to a dealer in Victor products for repair, give the type and serial number of the instrument as found on the name plate.

Victor Cabinet Cleaner is recommended for cleaning and polishing your cabinet. This preparation can be used freely without injuring the finish of the cabinet. It is however, suggested that you follow the instructions printed upon each can.

This cleaner can be purchased from any dealer in Victor products.

